

MISCELLANEOUS NEW SPECIES IN
THE PLEUROTHALLIDINAE (ORCHIDACEAE)

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Lepanthes pachyglossa Luer, sp. nov.

Planta mediocris, vaginibus ramicaulorum longiciliatis, foliis ovatis tenuibus plicatis inflorescentia racemosa congesta longioribus, sepalis ovatis, petalis transverse bilobis, lobo superiore rotundato, lobo inferiore uncinato minore, labello breviter pubescenti, laminis vestigialibus, corpore latissimo crassissimo, appendice extus parva.

Plant medium in size, epiphytic, caespitose; roots slender. Ramicauls slender, erect, 4-8 cm long, enclosed by 8-15 long-ciliate, lepanthiform sheaths with dilated ostia. Leaf light green, erect, thinly coriaceous, subplicate below the middle, ovate, acute, lightly acuminate, 3.5-6 cm long, 1.5-2.7 cm wide, the base plicate, more or less truncate, contracted into a petiole 1.5 mm long. Inflorescence a congested, distichous, successively flowered raceme up to 20 mm long, borne behind the leaf by a filiiform peduncle up to 30 mm long; floral bracts ciliate, 2 mm long; pedicel 1.5 mm long; ovary 2 mm long; sepals yellow, triangular-ovate, acute, carinate, the dorsal sepal 4.5 mm long, 3.25 mm wide, connate to the lateral sepals for 1 mm, the lateral sepals oblique, 4.25 mm long, 2 mm wide, connate 1 mm; petals orange, suffused with purple along the margins, minutely pubescent, transversely bilobed, 1.25 mm long, 3 mm wide, 3-veined, the upper lobe oblong-rounded, the lower lobe smaller, uncinuate; lip orange, suffused with purple, shortly pubescent, subquadrate, 1.4 mm long, the lamina reduced to oblong, thickened margins of a broad, thick body, shallowly concave when expanded, connate to the base of the column, the sinus thick and protuberant, shallowly cleft, the appendix a minute, pubescent, oblong body on the external surface; column 2 mm long, the anther dorsal, the stigma subapical.

Etymology: From the Greek *pachyglossa*, "a thick lip," referring to the thick body of the lip of this species.

TYPE: PANAMA: Prov. of Panama: epiphytic in cloud forest on Cerro Jefe, alt. 880 m, 1 Dec. 1983, flowered in cultivation in Sarasota, FL. 27 Apr. 1984, C. Luer, J. Luer, H. Butcher & A. Maduro 10029 (Holotype: MO).

This species is related to the Colombian L. troglodytes Luer & Escobar from which it is indistinguishable vegetatively. The blades of the lip of L. pachyglossa are reduced to thickened margins of a very thick and broad body. The minute appendix is on the external surface.

Masdevallia ariasii Luer, sp. nov.

Species haec M. wagnerianae Lind. ex Lindl. affinis, sed flore suborbiculato et aliis labelli subnullis differt.

Plant small, epiphytic, caespitose; roots slender. Ramicaul slender, erect, blackish, 5-10 mm long, enclosed by 2-3 short, tubular sheaths. Leaf erect, coriaceous, 3-6 cm long including the petiole 1-1.5 cm long, the blade oblong, obtuse to rounded, 1.4-2.2 cm wide, the base cuneate into the petiole. Inflorescence a single flower borne by a suberect, slender peduncle 2-3 cm long, with a bract near the base, from low on the ramicaul with an annulus; floral bract tubular, 6-8 mm long; pedicel 10-12 mm long; ovary 4 mm long; sepals pale yellow, microscopically pubescent internally, the dorsal sepal broadly obovate, concave, 13 mm long, 13 mm wide, connate to the lateral sepals for 7 mm into a broad, gaping, sepaline cup, the rounded apex abruptly contracted into a slender, reflexed, yellow-green tail ca. 25 mm long, the lateral sepals broadly ovate, with a red spot near the base, connate 8 mm into a transverse lamina 10 mm long, 17 mm wide, the rounded apices contracted into slender tails ca. 21 mm long; petals yellow-white, oblong, 4 mm long, 1.5 mm wide, with a longitudinal winglike callus above the lower margin, the apex truncate-retuse; lip cream, dotted with purple, oblong-elliptical in outline, 4.5 mm long, 2 mm wide, the lateral margins slightly dilated, membranous, minutely denticulate, the apex narrowly obtuse with a dark purple callus, the base subcordate, convex with revolute margins, concave beneath, inflexibly connected within to the column-foot; column white, lightly marked with rose, semiterete, 4 mm long, the foot thick, 2 mm long, with a slender, incurved extension.

Etymology: Named in honor of Sr. Manuel Arias of Lima, Peru, who discovered this species.

TYPE: PERU: Dept. of San Martin: epiphytic in forest between Tarpoto and Moyobamba, alt. 1000 m, May 1982, M. Arias A-142 (Holotype: MO; Isotype: Herb. H. Koeniger), flowered in cultivation by W. & H. Koeniger in Muenchen, West Germany, 8 Aug. 1984, C. Luer illustr. 10397.

This small species is closely allied to M. wagneriana of coastal Venezuela from which it may be distinguished by the broader dorsal sepal creating a suborbicular flower, and the lip which lacks the lateral wings. Instead of the attachment to the column-foot being loosely swiveled, the lip is more or less immobile with the slender extension of the column-foot short.

Masdevallia calagrasalis Luer, sp. nov.

Species haec M. guerrieroi Luer & Andreetta persimilis, sed synsepalo rigido concavo apicibus approximatis caulibus decurvis differt.

Plant medium in size, epiphytic, caespitose; roots coarse. Ramicauls stout, erect, 1.5-3 cm long, enclosed by 2-3 loose, tubular sheaths. Leaf erect, coriaceous, 8-12 cm long including a petiole 1.5-2.5 cm long, the blade narrowly elliptical, subacute to obtuse, 1.5-2 cm wide, the base narrowly cuneate into the petiole. Inflorescence a congested, successively few-flowered raceme borne by an erect, triquetrous peduncle 9-12.5 cm long, subtended by a short bract, from near the base of a ramicaul; floral bracts oblique, imbricating, 10-13 mm long; pedicel 10-15 mm long; ovary 5-6 mm long; sepals dark purple, rigid, fleshy, glabrous, the dorsal sepal narrowly oblong, 17 mm long, 5.5-6 mm wide, connate to the lateral sepals for 14-15 mm to form a subconical, sepaline tube, the obtuse free portion contracted into a forwardly directed, thick, yellow-green tail 15-17 mm long, the lateral sepals obovate, oblique, connate 12-13 mm, 15-18 mm long, 15-19 mm wide together, forming a broad, secondary mentum and a smaller primary mentum beneath the column-foot, the subacute apices near but not approximate, contracted into thick, yellow-green tails 10-12 mm long; petals dark purple, oblong, 6.5 mm long, 1-2 mm wide, the apex obtuse or rounded with a notch, the labellar half with a marginal carina curving away from the margin below the middle, then curving into an obtuse appendage 1 mm long at the base; lip yellowish, diffusely spotted with purple-brown, oblong-subpandurate, 6.5 mm long, 2.25 mm wide, with obtuse marginal folds just above the middle, the disc sulcate centrally, the epichile ovate, obtuse, minutely verrucose and denticulate, the hypochile oblong with the base subcordate, hinged below; column suffused with purple, semi-terete, 6 mm long, the foot stout with a short, incurved extension.

Etymology: Named for the region around the Río Calagrás, plus the Latin -alis, "pertaining to," in the vicinity of which this species was discovered.

TYPE: ECUADOR: Prov. of Morona-Santiago: epiphytic in forest near Río Calagrás north of Gualaquiza, alt. 1500 m, collected Jan. 1980 by M. Schroedl et al., flowered in cultivation in Stockholm, Sweden 15 Aug. 1984, C. Luer 10407 (Holotype: MO; Isotype: Herb. H. Koeniger); same area, alt. 1500 m, collected Sept. 1980, by C. Luer et al., flowered in cultivation at Spielberg, West Germany, by B. Wuerstle s.n. (SEL; Herb. H. Koeniger); without locality or collector, cultivated by Herr Hautau in West Germany, flowered in cultivation 7 Sept. 1981, C. Luer 6462 (SEL; Herb. H. Koeniger).

This species occurs locally in the tall, wet forests of south-eastern Ecuador, where it has been found several times in recent years. It is closely allied to M. guerrieroi which is known to

occur in the forests farther south in the same province, but the latter may be identified by the sepals with approximate apices and diverging tails.

Masdevallia dalessandroi Luer, sp. nov.

Inter species *M. wagneriana* Lind. ex Lindl. affinis, species haec sepalis patentibus longicaudatis, petalis basi brevidentatis, labello elliptico dignoscenda.

Plant medium in size, epiphytic, caespitose; roots slender. Ramicaul slender, erect, blackish, 1.5-2 cm long, enclosed by 2-3 tubular sheaths. Leaf erect, coriaceous, dark green, mottled gray beneath, long-petiolate, 4-6.6 cm long, 1-1.2 cm wide, the blade elliptical, acute, cuneate below into the blackish petiole 2-2.5 cm long. Inflorescence a solitary flower borne by an erect, slender, peduncle ca. 5 cm long, with a bract near the base, from an annulus low on the ramicaul; floral bract blackish, 9 mm long; pedicel 12 mm long; ovary 6-7 mm long; sepals light yellow-green, dotted with red within, suffused with gray externally, blackish along the veins, widespread, the dorsal sepal obovate, concave above the middle, 17 mm long, 10 mm wide unexpanded, connate to the lateral sepals for 3 mm into a shallow, gaping cup, the apex obtuse to round, contracted into a slender reflexed, green tail 5.5-6 cm long, the lateral sepals oblong, 23 mm long, 12 mm wide, connate 9 mm, the broadly obtuse to rounded apices contracted into tails similar to that of the dorsal sepal; petals yellow-white with purple dots, more or less oblong, 4.5 mm long, 1.5 mm wide, the narrowly truncate apex subtridentate, the lower margin with a broadly rounded lamella along the middle third, ending in a short, retrorse tooth at the base; lip white, marked with purple, elliptical, 5 mm long, 2.75 mm wide, the margins minutely serrulate above the middle, the apex narrowed and shortly oblong, convex, with a purple callus, the disc convex below the middle, lightly sulcate, the base loosely and narrowly hinged from beneath to the column-foot; column yellow-white with purple dots and margin, semiterete, 4.5 mm long, with a slender, incurved extension.

Etymology: Named in honor of Dennis D'Alessandro of Vilcabamba, Ecuador, who discovered this species.

TYPE: ECUADOR: Prov. of Zamora-Chinchipec: epiphytic in cloud forest above Valladolid, alt. 1900 m, 18 Mar. 1984, C. Luer, S. Dalström, T. Höijer & D. D'Alessandro 9627 (Holotype: MO).

Among the species related to *M. wagneriana*, this species may be distinguished by the long, filiform sepaline tails, narrowly oblong petals with a short, basal tooth, and an elliptical lip. In common with the other species the motile lip is convex basally and delicately hinged to a filiform extension from the column-foot.

Masdevallia don-quiote Luer & Andreetta, sp. nov.

Planta mediocris vel grandis, pedunculo triquetro gracili folio elliptico crasso multilongioribus, racemo congesto, sepalo dorsali longo angustissime triangulari attenuato, synsepalo verrucosissimo anguste elliptico longicaudato lateribus revolutis, petalis oblongis callosis, labello obovato apice obtuso verrucoso revoluta.

Plant medium in size to large, epiphytic, caespitose; roots coarse. Ramicaul erect, stout, 1-3 cm long, enclosed by 2-3 loose, tubular sheaths. Leaf thickly coriaceous, erect, 7-15 cm long including the petiole 2-2.5 cm long, 1.8-2.7 cm wide, the blade elliptical, acute, gradually narrowed below into the stout petiole. Inflorescence a congested raceme of successive flowers, 1 cm long or longer, borne by a slender, erect, triquetrous peduncle 20-31 cm long, from an annulus low on the ramicaul; floral bracts imbricating, 5-10 mm long; pedicel 10 mm long; ovary 5-7 mm long; dorsal sepal yellow, narrowly triangular, attenuate into a slender tail, 55-80 mm long, 7 mm wide at the base, connate to the lateral sepals for 2 mm to form a shallow, gaping cup; lateral sepals dark purple, markedly verrucose, narrowly oblong-elliptical with recurved sides, connate 20-28 mm, the acute apices attenuate into slender, yellow tails, 50-78 mm long, 10 mm wide unexpanded; petals yellow-white, edged in purple, oblong, 9 mm long, 2.5 mm wide, the apex lightly bilobed, the lower half with a longitudinal callus ending in a rounded callus above the base; lip yellow, suffused with purple, obovate, 6 mm long, 4 mm wide, the apex obtuse, verrucose, revolute, the subcordate base hinged to the column-foot; column white, semiterete, 9 mm long, the foot short, thick, with an abbreviated, incurved extension.

Etymology: Named for the fancied appearance of the flower with its forward-pointing dorsal sepal resembling a lance and the lateral sepals resembling the bowed legs of a horseman.

TYPE: ECUADOR: Prov. of Morona-Santiago: epiphytic in forest near Bomboiza, alt. 1500 m, Nov. 1982, A. Andreetta & M. Portilla 1770 (Holotype: MO), C. Luer illustr. 9533.

This remarkable species was discovered recently by Padre Angel Andreetta and Mario Portilla near the Salesian Mission in south-eastern Ecuador. The sepals are long-attenuate, the laterals coarsely verrucose.

Scaphosepalum andreettae Luer, sp. nov.

Planta parva, pedunculo laevi, floribus parvis, sepalo mediano ovato inferne concavo superne marginibus revolutis, sepalorum lateralium pulvinis parvis oblongis pubescentibus, petalis transverse obtusis margine superiore angulato, labello arcuato bilamellato, lamellis serratis.

Plant small, epiphytic, caespitose; roots coarse. Ramicauls slender, erect, 1-1.5 cm long, enclosed by 2-3 tubular sheaths. Leaf erect, coriaceous, narrowly elliptical, subacute to obtuse, 4-6.5 cm long, 1-1.5 cm wide, cuneate below into the slender petiole 1.5-2.5 cm long. Inflorescence a loose, successively flowered, raceme up to 2 cm long, borne more or less horizontally by a slender, smooth peduncle ca. 5 cm long, from an annulus low on the ramicaul; floral bract 2 mm long, pedicel 5-6 mm long, ovary 2.5 mm long, minimally verrucose; sepals brown, green toward the apices, the middle sepal ovate, obtuse, 6 mm long, 3 mm wide, concave below the middle, the margins revolute above the middle enclosing the apiculate apex, the lateral sepals connate to the apices into an ovate, cymbiform synsepal, 5 mm long, 4 mm wide, the rounded apices approximate, each with an oblong, pubescent callus 1.5 mm long, 0.75 mm wide, contracted into slender, subserrate tails 3 mm long; petals translucent yellow, obscurely oblong, 2 mm long, 2 mm wide, 2-veined, the apex transversely obtuse, with an acute angle on the upper margin near the apex and with the lower margin broadly rounded; lip yellow, suffused with brown, arcuate, oblong-trilobed, 2.75 mm long, 1 mm wide, the anterior third obovate, broadly rounded, serrulate, the middle third dilated, with a pair of erect, serrate calli on the disc, the lower third truncate, hinged by a membranous strap to the bottom of the column-foot; column yellow, 3 mm long, broadly winged, with a thick foot 2 mm long.

Etymology: Named in honor of Padre Angel Andreetta, who along with Mario Portilla discovered this species.

TYPE: ECUADOR: Prov. of Morona-Santiago: cloud forest of Cutucú, alt. 1400 m, Oct. 1983, A. Antreetta & M. Portilla, flowered in cultivation 16 Mar. 1984, C. Luer 9528 (Holotype: MO).

This small species with small flowers is readily identified by the membranous middle sepal with revolute margins, the small, pubescent cushions of the lateral sepals, and petals with transversely obtuse apices. The lip is not unlike that of *S. breve* (Rchb. f.) Rolfe.